

Patent Claims

1. A multilayer decoupling and sealing system (1), in particular for laying ceramic paving (10) by using a thin-bed method (12), said system comprising a layered construction containing, from the base upwards,
 - a sealing layer (4) that is impermeable to liquid;
 - an anchoring layer (2, 3) that is configured from a lattice-type structural element and used to hold a filler material (12) that is to be incorporated into the upper face of the decoupling and sealing system (1), which is plastic during processing and subsequently cures,
 - a reinforcing layer (5) which is fixed, at least in some sections, to the anchoring layer (2, 3).
2. Decoupling and sealing system (1) as defined Claim 1, characterized in that the lattice-type structural element (2, 3) is formed from individual rods (7, 8) that are disposed to one another in the manner of a lattice and fixed to one another at the points of intersection (9) of the lattice.
3. Decoupling and sealing system (1) as defined in Claim 2, characterized in that the individual rods (7, 8) of the lattice-type structural element (2, 3) are of an essentially rectangular cross section.
4. Decoupling and sealing system (1) as defined in one of the Claims 2 or 3, characterized in that the intersecting individual rods (7, 8) of the lattice-

type structural element (2, 3), are so arranged that a first layer (2) consists of identically oriented individual rods (7) beneath a second layer of individual rods (8) that are disposed at an angle thereto and are in each instance oriented identically to one another.

5. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the lattice-type structure of the individual rods (7, 8) is in the form of a rhombus, a rectangle, or a square.
6. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the individual rods (7, 8) of the two layers (2, 3) are welded to one another at the points of intersection (9) when under mechanical pressure.
7. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the individual rods (7, 8) of the lattice-type structural element (2, 3) have edge areas that are slanted towards one another, at least at their points of intersection (9), thereby forming undercut sections on the individual rods (7, 8).
8. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that a continuous vapour pressure equalizing layer (6) is interposed in each instance between the first and second layer (2, 3) of individual rods (7, 8).

9. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the vapour pressure equalizing layer (6) is formed by a polyethylene film.
10. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the reinforcing layer (5) is welded onto the anchoring layer (2).
11. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the reinforcing layer (5) is cemented onto the anchoring layer (2).
12. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the reinforcing layer (5) is in the form of a lattice-type textile, preferably a glass-fibre textile, to provide for secure anchoring with the filler material (12) that is to be incorporated on top of the decoupling and sealing system (1).
13. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the reinforcing layer (5) extends beyond the other layers (2, 3, 6) at least in individual edge areas (14) of the decoupling and sealing system (1) so as to create a transition to other sections of the decoupling and sealing system (1).

14. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the decoupling and sealing system (1) can be laid so as to float on a substratum (15).
15. Decoupling and sealing system (1) as defined in one of the Claims 1 to 13, characterized in that the decoupling and sealing system (1) is laid rigidly, preferably cemented, on a substratum (15).
16. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the sealing system (4) is formed from a non-woven anchoring material that is impermeable to liquid.
17. Decoupling and sealing system (1) as defined in one of the Claims 1 to 15, characterized in that the sealing layer (4) is formed from a polymer sealing layer, in particular from a polyethylene sealing layer.
18. Decoupling and sealing, system (1) as defined Claim 17, characterized in that the sealing layer has-at least on its underside-non-woven material (4) for anchoring to the substratum (15), preferably for anchoring in the adhesive.
19. Decoupling and sealing system (1) as defined in Claim 18, characterized in that the sealing layer (4) extends beyond the other layers (2, 3, 5, 6) of the decoupling and sealing system (1), at least in

individual edge areas (14'), so as to create a transition area that is impermeable to liquids to other sections of the decoupling and sealing system (1).

20. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the thickness of the anchoring layer (2, 3) is between 2 and 6 mm.
21. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the overall thickness of the decoupling and sealing system (1) is between 2 and 8 mm.
22. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that after the incorporation of the filler material (12), the anchoring layer (2, 3) is essentially completely filled with the filler material (12) and the reinforcing layer (5) that is imbedded in the hardened filler material (12) performs a stiffening and reinforcing function with respect to mechanical loads applied from above.
23. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the decoupling and sealing system (1) can be configured as a façade element with than is ventilated from behind.
24. Decoupling and sealing system (1) as defined in one of the preceding claims, characterized in that the decoupling and sealing system (1) can be configured as

a barrier element, in particular a barrier element
that is of polystyrol.